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Is mainstreaming the alternative?

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IS MAINSTREAMING THE ALTERNATIVE?

by

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TABLE OF CONTENTS

Chapter I

INTRODUCTION

> "The conscience of special educators needs to rub up against morality. In large measure we have been at the mercy of the general education establishment in that we accept problem pupils who have been referred out of the regular grades. In this way, we contribute to the delinquency of the general educators since we remove the pupils that are problems for them and thus reduce their need to deal with individual differences. The 'entente' of mutual delusion between general and special education that special class placement will be advantageous to slow learning children of poor parents can no longer be tolerated." [1]

Thus, Lloyd Dunn concluded his timely, scathing criticism of the educational practices of the profession of special education. This article was to provide the impetus to special educators to do some evaluating and research.

In 1975, Wisconsin Chapter 89 became a law which is now known as Chapter 115. It has directed Wisconsin's local school districts to be responsible for the education of children with exceptional needs as well as "normal" children. How this is done and how well this is done are as important as the passage of the law.

For years, special educators have assumed that the special class model was the most effective approach for educating exceptional children. Exceptional children may be defined as students with emotional problems, learning disabilities or those labeled educable-mentally retarded. Segregated classrooms have been criticized in recent years. Mainstreaming has been suggested as an alternative.

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[1] Lloyd M. Dunn, "Special Education for the Mildly Retarded - Is Much of it Justifiable?", Exceptional Children, (September 1968), pp. 5-22.

Mainstreaming may be defined as the system in which children with exceptional needs are placed into regular classrooms for as much time as possible. Special education and regular teachers work in partnership to tailor an individualized program to fit the needs of each special student. Often a student will spend part time in the regular classroom under the direction of the regular classroom teacher and part of the day in a resource room receiving additional individual or small group help from a special teacher.

The present emphasis on mainstreaming was brought about in part by: (1) Research dealing with the effectiveness of special classes. (2) Recognition that many of the diagnostic instruments used for identifying retarded children were culturally biased, which often resulted in inappropriate diagnosis and placement of children into special classes for the retarded. (3) Realization that the labeling process becomes a self-fulfilling prophecy and that the students' handicap is perpetuated and reinforced instead of ameliorated. (4) Court litigation in special education related to placement practices and the rights of children to appropriate educational treatment. All of these areas will be expanded upon within the body of this paper.

The concept of mainstreaming is relatively recent, therefore this paper concerns itself with studies done since 1968.

Chapter II

INTRODUCTION

The exceptional child has gone from being ignored to being segregated. Now special educators are asking themselves WHY? Lloyd Dunn disturbed special educators in 1968 with his Manifesto for Handicapped Children. Then DCBD, at the CEC convention in Denver, stated unequivacally that special educators had been guilty of perpetrating a crime against children - by creating islands which set handicapped children apart from the mainstream of education, and denying their rights to equal protection under the law.

This is all history and hopefully worthwhile history. Special educators have much to be proud of, a lot to wonder about and many questions to answer. One important question is: "Is mainstreaming the alternative?"

Mainstreaming has achieved the status of a code word. Like other social code words (e.g. busing), it has come to have different meanings to different persons. It is subjected to exploitation and emotionalism. To some the word represents the answer or an answer to multiple dissatisfactions which have been around for a long time.

Special education has to decide whether it will continue to be the dumping ground for general education. Will it continue to accept children who belong in the regular classroom? Perhaps it is time for special educators to reach out to regular teachers and administrators with creative applications of the knowledge gained about exceptional children--creative applications of this knowledge to all children. The individualization of instruction should be mandatory for all children.

There are justifications for raising critical questions regarding the special class model for educating exceptional children -- professional, legal and moral justifications.

Nearly all of the efficacy research studies on the special class model have shown that the exceptional child in regular classes with little or no special help does better academically than does the exceptional child in special classes.

There appear to be three areas of difficulty when dealing with problems of efficacy. The first of these is adherence to the past. This is the "common sense" approach or to do what has been done in the past because, in spite of inadequacies, it has worked most of the time. Often the positions taken by special educators reveal a tendency to remain fixed at the level of past experience. New models for dealing with exceptional children often obtain validity through resembling old models. Creative and different plans are sometimes rejected because they depart from that which "makes sense".

The second area of difficulty is failure to advance beyond an intuitive or problem solving approach. The tendency to lean on this sort of thinking is reinforced by an inability to define problems and problem situations in order to generate empirically verifiable statements. An example is, it is evident that mentally retarded children can or cannot learn effectively in regular classes. It must be asked: self-evident to whom?

The last area of difficulty relates to the failure to examine critically the constructs which are used. The examination should

include both the constitutive and operational validity of the constructs, the data gathering and problem solving parameters available to the educator. [2] A construct is defined as a special kind of concept which is invented or adopted to explain the relationship between observables. These areas of difficulty must be kept clearly in mind when researching efficacy studies.

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[2] Calvin C. Nelson, Leo J. Schmidt, "The Question of the Efficacy of Special Classes", Exceptional Children, (January 1971), pp. 381-384.

Efficacy Studies Relating to Mainstreaming

Nicholas A. Vacc conducted two studies concerning emotionally disturbed children which covered their achievement, overt behavior and social position. E. D. children in special classes were compared with E. D. children placed in regular classes. Vacc's earlier study concluded that: (1) Emotionally Disturbed children in the regular classroom achieved less well on the Wide Range Achievement Test than did the E. D. kids in special classes. (2) Using a Behavior Rating Scale, it appeared that the E. D. children in special classes made changes in a positive direction, while E. D. youngsters in the regular classroom showed changes in the negative direction. (3) E. D. children were less accepted in regular classes. (4) A sociometric questionnaire showed E. D. pupils to be rejected and isolated. [3]

Vacc's later study was designed to investigate long term changes in achievement, overt behavior and social position of children identified as emotionally disturbed. Changes were measured for two groups of emotionally disturbed children: those who had experienced special class placement and had returned to regular classes for at least two years and those who did not experience the special class procedure.

The conclusions of this study indicate that special classes do not result in long term positive changes for emotionally disturbed

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[3] Nicholas A. Vacc, "A Study of Emotionally Disturbed Children in Regular and Special Classes", Exceptional Children, (November 1968), pp. 197-204.

children as compared to emotionally disturbed children placed in regular classes. This follow-up study indicates that if special classes have any advantages over regular classes for emotionally disturbed children, it exists only so long as the children remain in the special program. A greater growth in achievement was shown for the emotionally disturbed children who remained in the regular classroom. There were no significant differences, in overt behavior, between the two groups. The sociometric questionnaire did not reveal any significant differences between the emotionally disturbed children who received special class intervention and those who did not. The results of these analyzed data question the long range efficacy of special class intervention. [4]

In 1972, Shotel, Iano and Mc Gettigan administered a questionnaire to elementary school regular class teachers to determine the effect of an integrative resource program on the teachers' attitudes toward handicapped children. The questionnaire was designed to elicit teachers' attitudes toward handicapped children with respect to their integration into the regular program, their potential for academic and social adjustment, the teachers' competencies for teaching the children, and the need for special methods and materials in teaching handicapped children. The experimental group consisted of teachers in schools participating in an integrative resource room program, and the control group consisted

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[4] Nicholas A. Vacc, "Long Term Effects of Special Class Intervention for Emotionally Disturbed Children", Exceptional Children, (September 1972), pp. 15-22.

of teachers in schools with self contained classes.

The results of this questionnaire indicate that the teachers found many educable retarded children did not academically and socially integrate well into their classrooms. As for the emotionally disturbed child; a significantly greater percentage of experimental than control teachers were in favor of integration into the regular classes with supportive resource room services. It is also interesting to note that teachers were generally more positive in their attitudes toward the emotionally disturbed child than they were toward the educable retarded child.

The teachers were generally more positive in their attitudes toward the learning disabled child than toward the emotionally disturbed and educable retarded child. The results are somewhat difficult to interpret because of a terminology problem. Many of the teachers seemed to consider "learning disabled" synonymous with "culturally disadvantaged".

The unanimity among the teachers concerning the need for special methods and materials may represent an obstacle to the integration of handicapped children. If regular classroom teachers believe they need an array of special methods and materials then it is unrealistic to expect them to accept the major responsibility for teaching the children. It is possible that special educators are responsible for encouraging a mystique that will make it difficult to successfully integrate handicapped children.

In this study, integrating handicapped children into regular classes with supportive services provided by resource rooms had

slight effects on teachers' attitudes toward educable retarded and learning disabled children and moderately positive effects on teachers' attitudes toward emotionally disturbed children.[5]

Another study concerning attitudes was done in 1974 by Iano, Ayers, Heller, Mc Gettigan and Walker. This study was done to determine the sociometric status of elementary school regular classes of forty educable mentally retarded children who participated in an integrative resource room program.

This study failed to demonstrate that the use of an integrative resource room substantially facilitated the social integration of educable mentally retarded children in regular classes. However, overlap in results between the educable mentally retarded and non-retarded pupils suggested that diagnosis of educable mentally retarded is not predictive of low sociometric status. These results seem to indicate that educators have a responsibility to search for ways of helping low status children become better integrated with their school peers.[6]

Another study done in 1972 was the assessment of changes of attitude of 152 elementary children toward orthopedically handicapped children as a result of an integrated school experience.

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[5] Jay R. Shotel, Richard P. Iano, James F. Mc Gettigan, "Teacher Attitudes Associated with the Integration of Handicapped Children", Exceptional Children, (May 1972), pp. 677-683.

[6] Richard P. Iano, Dorothy Ayers, Howard B. Heller, James F. Mc Gettigan, Valaida S. Walker, "Sociometric Status of Retarded Children in an Integrative Program", Exceptional Children, (January 1974), pp. 267-271.

The results of this study were: (1) non-handicapped childrens' attitudes can be changed toward a more positive perception of orthopedically handicapped children, (2) the handicapped were seen as less weak and less in need of attention, (3) similar positive attitudes developed among elementary school boys and girls toward orthopedically handicapped children, and (4) attitudes varied with age and grade.[7] This study presented a good case for integrated facilities. It shows the importance of providing favorable interactions so that the non-handicapped children can develop a more positive and realistic perception of the exceptional child.

Another important attitude to consider is that of the exceptional child. If new educational programs are going to be suggested and implemented it would appear beneficial to know whether or not existing programs are meeting the affective needs of children in special classes.

A study of 369 children in special classes for the educable mentally retarded was done. The students were randomly selected from five school districts in California. Each of the subjects was interviewed by a graduate assistant following a period of observation and familiarization.

Younger children had a more favorable attitude toward their placement in special class with 52.73 percent indicating they

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[7] Jacqueline Rapier, Ruth Adelson, Richard Carey, Katherine Croke, "Changes in Children's Attitudes Toward the Physically Handicapped", Exceptional Children, (November 1972), pp. 219-223.

thought they were in a special class "to learn", "to read", etc. This positive attitude decreased to 34.42 percent on the junior high level and to 18.25 percent on the senior high level. Few of the children (less than 10 percent) interviewed perceived themselves as being "mentally retarded" or any of the other labels so commonly used by their non-retarded peers.

It appears that children in special classes for the mildly retarded are capable of clearly communicating their feelings regarding their educational placement. This study indicates that the special class is a generally stimulating and comfortable placement for children who have had difficulty in adjusting to other placements within the educational system.[8]

In another similar study The School Morale Inventory was given to 341 junior high school retarded students and 717 non-retarded students in the same schools. The results revealed as many positive responses given by special class students to various questions as were given by the non-retarded. It is suggested that retarded students reject the stigma of special placement, but hold many positive attitudes toward their classroom and school experiences.

A separate analysis of responses from suburban retarded students contrasted with those given by inner city retarded revealed more positive attitudes, toward special class placement, were held by the suburban retarded. This reinforces the idea that retarded

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[8] Frank Warner, Robert Trapp, Suzanne Walsh, "Attitudes of Children Toward Their Special Class Placement", Exceptional Children, (September 1973), pp. 37-38.

students cannot be considered a homogeneous group and that the educational problems of the inner city retarded are particularily acute.[9]

Suzanne Ziegler and Donald Hambleton report on a recent project involving the integration of young trainable mentally retarded (TMR) children into a regular elementary school. Two classes of young TMR children were transferred from a school for the retarded to a regular public school. The TMR children interacted with the school population daily, mainly in nonacademic situations. Their behavior at two time points during the year was compared to that of a matched group of TMR children in a school for the retarded.

This evaluation was designed to assess the effects of placing TMR children in a public school setting, through direct observation and recording of the quantity and quality of interactions between retarded and non-retarded children. The tools used were a behavior checklist to be used in play situations outside the classroom and an interaction analysis.

The data collected from the behavior checklist showed no statistically significant differences between the experimental and contrast groups. There was evidence that non-retarded children, contrary to common beliefs, do not single out and victimize the retarded.

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9 Reginald L. Jones "Student Views of Special Placement and Their Own Special Classes: A Clarification", Exceptional Children, (September 1974), pp. 22-29.

The interaction analysis showed that interactions involving only retarded children were predominately positive in character, but included more provoked aggression and much less teaching, intervening and comforting/helping than interactions involving non-retarded and retarded children.

It was concluded from this study that the placement of the special classes in a regular school was effective in promoting interaction between the retarded and non-retarded students and provided a more normal environment for the retarded children.[10]

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[10] Suzanne Ziegler, Donald Hambleton, "Integration of Young TMR Children into a Regular Elementary School", Exceptional Children, (May 1976), pp. 459-460.

Studies Concerning Effects of Labeling

Placing any label on any human being does violence to that individual uniqueness which is the joy of humanity. Yet, it is done because it is a convenient communication shorthand. When a person is called a quarterback, or a Catholic, or a teacher, or a hippie, he has been stripped of some unique features but some of that person's characteristics or functions have been conveyed. Educational labeling is no different. Whether a person is referred to as a "good student", underachiever, behavior problem, gifted or retarded child, it is done to quickly communicate part of the essence of that student.

A number of problems may be created by the categorizing of people and programs. (1) There is a tendency to stereotype or to ascribe characteristics of the group to individuals. The practice is frequently in error and prejudicial to the interests of the individuals. (2) The category labels tend to become stigmatic and to be attached indelibly to the individuals, often resulting in scapegoating. Sometimes the child's label becomes an excuse for poor educational programs. (3) People who work with exceptional children may associate categories with negative expectations and then carry them into their relationships with the children and into curriculum planning. A degree of diagnosogenic or prophecy fulfilling inadequacy in the child's development may result. (4) An assumption is made frequently about an easy isomorphism between categorical and educational classifications. [11]

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[11] Maynard C. Reynolds, Bruce Balow, "Categories and Variables in Special Education", Exceptional Children, (January 1972), pp. 357-366.

For example, it may be assumed that because a child is "mentally retarded" he should get the "primary life needs" curriculum, which is not necessarily so.

In 1967, Zubin cited three purposes for the diagnosis and classification of what he terms behavior disorders: (1) to search for etiology, (2) to make a prognosis, and (3) to select a therapy.[12] Physicians and clinical psychologists tend to be oriented to these purposes. None of these three purposes are the chief concern of the educator; however, they often tend to distract or clutter the educator's information systems.

Zubin's first purpose--etiology--is not a useful approach in education. For example, the cause of poor hearing gives little help in deciding how to teach the child.

To make a prognosis (Zubin's second purpose) would have little value as an educational approach. Educators are to influence childrens' learning, not predict it. IQ test results are often misused in this area. IQ test results can predict moderately well, but are often overused in decision making.

Zubin's third purpose--the selection of treatment--cannot be ignored because an important purpose of educational classification is to select treatment. However, educational treatments should always be positive rather than preventative. The educator is concerned with teaching and learning, and the treatments should involve development.

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[12] J. Zubin, "Classification of the Behavior Disorders", Annual Review of Psychology, (Palo Alto, California: Annual Reviews, Inc. 1967), pp. 373-406.

"Special educators should stop talking about dysfunctions, deficits, impairments, and disabilities as if these were the starting points in education and recovery from or remediation of them were the goal. Obviously, one prevents problems or creates a kind of invulnerability to insult whenever competencies are engendered, but the competencies themselves are the goal." [13]

Robert P. Cantrell and Mary Lynn Cantrell report on a study which evaluated the effects of a support teacher program in mainstreaming exceptional and potentially exceptional children within the regular school program. The title of the project was Prevention-Intervention Project (PIP). It was designed to solve children's problems before referral for formalized services which would require labeling and possible exclusion from opportunities normally available to nonproblem children. The program used public school teachers with support teachers.

Support teachers were trained in two phases. The first phase was six weeks long and training was in the areas of: (1) behavioral principles, (2) basic evaluation techniques, (3) program relevant assessment, (4) academic programming, (5) methods of contingency management, (6) group process, and (7) coordinated ecological planning. The second phase consisted of intensive case consultation and ongoing feedback provided for each case opened during the school year.

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[13] Maynard C. Reynolds, Bruce Balow, "Categories and Variables in Special Education", Exceptional Children, (January 1972), pp. 357-366.

The subjects in this study were first graders in experimental schools (pupil N=723, teacher N=37) and control schools (pupil N=355, teacher N=18). The Otis-Lennon Group Intelligence Test and preyear Metropolitan Achievement Tests (Primer, form F) were administered at the beginning of the year. There were two control schools, one was "active" control and the other was "hold-out" control. The active controls participated in pupil achievement testing and classroom observation procedures during the first year. The hold-out control schools did not participate in the testing and observation; however, they were included in the pupil referral data-gathering process during the projects' second year.

The support teachers were available to the experimental school teachers. The support teachers worked with them to solve the problems of any child. No specific set of referral criteria was used. They used a structured, problem solving procedure developed by Cantrell and Cantrell in 1974. It served as an aid in problem identification, analysis, intervention planning, enactment and problem monitoring. Observational procedures and video taping were available to both experimental and control teachers.

The low, middle, and high IQ experimental school students attained higher residual scores than did control school students at comparable IQ levels. There was less variability of achievement scores for the experimental school students. These results seem to support the hypotheses that regular classroom teachers who have access to resource personnel can affect significant achievement gains for

students at all levels of IQ functioning. Referrals for psychological services were lower the following year. The authors also noted that no one IQ level of experimental students achieved at the expense of any other IQ level.[14]

Summary

The studies reviewed reveal that the mainstreaming movement has commenced and is creating a process of change for some handicapped children in the regular classroom. There is a lack of concensus on how to make mainstreaming work, however, there is an awareness of the complexity of problems in developing such an approach.

The special child will always have to live in a world with nonhandicapped peers and experience both the benefits and indignities of that world. If positive results continue, educators may have at least a partial solution to the isolation from that world which has been imposed on the special child.

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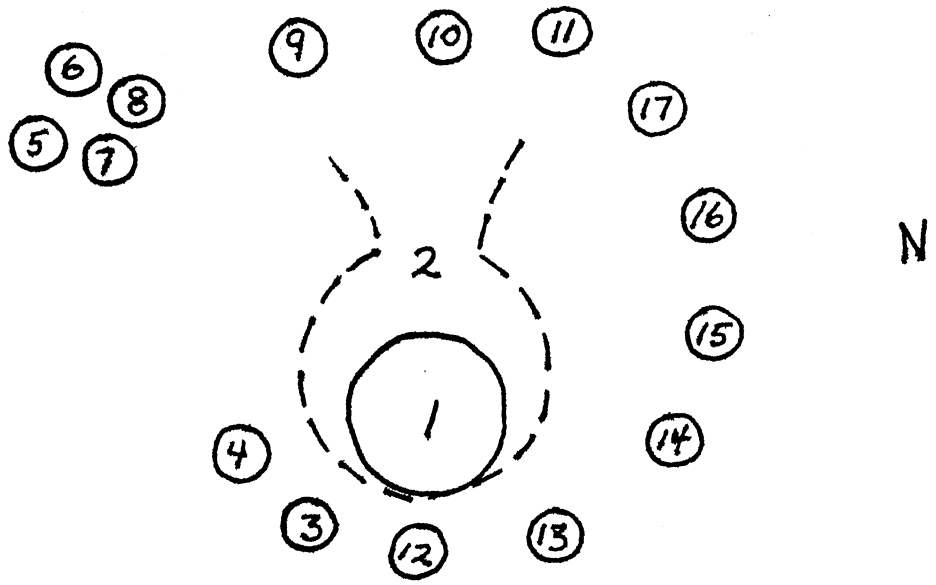
[14] Robert P. Cantrell, Mary Lynn Cantrell, "Preventive Mainstreaming: Impact of a Supportive Services Program on Pupils", Exceptional Children, (April 1976), pp. 381-385.

Proposals for Mainstreaming

Special educators are beginning to propose many methods and models for mainstreaming. It appears that the special educators are seeking to develop the attitudes and skills necessary to accommodate pupils' unusual needs within the regular school framework.

One such proposal is made by Reynolds and Balow. They think of special education as an aggregate term covering all specialized forms of instruction that cannot be offered by unassisted regular classroom teachers. Figure 1 shows the systematic relationship between "special" and "regular" education.



The large circle (1) symbolizes the teaching competencies possessed by regular classroom teachers. Competencies vary, but the symbol is useful because regular teachers fall into a kind of modal pattern with respect to the range of their teaching resourcefulness.

For example, most regular teachers do not know braille reading methods but they are able to teach reading to most children by using other approaches.

It is incumbent upon special educators to help create as much resourcefulness as possible in regular teachers. The dotted portion (2) of the figure tends to enlarge the first circle (1) and represents the efforts that should be made to extend the specialized abilities and sensitivities of regular teachers. The dotted configuration is left open to indicate continuing consultation with and assistance by specialists. Colleges and universities and special education administrators need to exert themselves to devise and implement ways through which this growth of regular teachers and assistance to them may be accomplished. The major part of this growth will probably have to come through inservice education.

All of the remaining small circles (3,4,5....N) are intended to represent special instructional systems that are offered by specially trained personnel. These instructional systems tend to fall into certain clusters, suggesting that several of them are likely to be learned by one person. For example, some teachers become quite adept in handling combinations of lipreading, auditory training, fingerspelling, and special systems for language instruction without audition.

Because of the tremendous range of systems or curricula now in existence and likely to emerge in the future, teacher candidates can be equipped to handle only parts of them. The specialized systems or aspects of the school program can and perhaps should carry labels

reflecting their characteristics. Teachers might also carry the label, for example, the "orientation and mobility instructor" or "preschool language teacher".

In stressing systems of instruction, it is not intended that the concern should center exclusively on technicalities of methods and materials for cognitive learning at the expense of affective learning, motivation, or other topics. Nor is it intended to diminish the importance of a teacher's clinical skills. All that is possible ought to be done to increase the abilities of all teachers to make detailed educational assessments of children and to follow through with precise educational programs as needed.[15]

James J. Gallagher made an administrative proposal to counteract the most difficult elements of labeling. This proposal of a special education contract is based on the following assumptions:

> Exiling children to special education is an easy way out for general education and must be made more difficult if it is going to be stopped as a general practice.
>
> Bureaucracies such as educational systems will move institutionally only under threat or duress. Otherwise, they will take the path of administrative ease.
>
> Special educational assistance is called for in many children who have mild handicaps and a way should be found to apply it.

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[15] Maynard C. Reynolds, Bruce Balow, "Categories and Variables in Special Education", Exceptional Children, (January 1972), pp. 357-366.

> A special education operation will continue to operate separately from general education for seriously handicapped children and for children who need a more intensive remedial program than is possible through a resource person to the regular teacher or a resource room.

The special education contract as proposed by Gallagher would be as follows: Placement of primary school age mildly retarded or disturbed or learning disabled children in a special education unit would require a contract signed by parents and educators, with specific goals and a clear time limit. This contract should be for a maximum of two years and would be nonrenewable, or renewable only under a quasijudicial type of hearing, with parents represented by legal or child advocate counsel. The contract, composed after a careful educational diagnosis, would commit the special educational personnel to measureable objectives that would be upgraded on a six month interval. Ideally, it should start at age three or as early as possible for maximum results with a minimum of effort.

Gallagher lists several advantages of such a contract, to both parents and educators. First, it would give a clear set of objectives around which to mold a program. Second, it would give a bargaining point within the educational system for more resources of personnel and equipment. The establishment of objectives would be a joint effort of regular and special educators - another institutional device to encourage cooperation. [16]

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[16] James J. Gallagher, "The Special Education Contract for Mildly Handicapped Children", Exceptional Children, (March 1972), pp. 527-535.

M. Stephen Lilly proposes a new service model for special education. He proposes a "zero reject" model, meaning that a child enrolled in a regular education program cannot be separated from that program for any reason. Removal from the mainstream must be an administrative impossibility. Lilly states that the zero reject model accomplishes two goals. First, it places the responsibility for failure on the teacher. A zero reject model demands that the problem be dealt with by those most directly involved.

The second purpose is to deny educators the possibility of ultimate failure with a child. It protects educators from the tendency to blame and label children for failure and to prevent acceptance of easy "solutions" to complex instructional problems.

A training based special education model would be necessary. Its function would be to provide training for classroom teachers, not to provide direct services to children. Special educators would be teacher educators, as opposed to teacher diagnosticians, Prognosticators or prescribers. Lilly proposes that special education abandon its present child centered service function in favor of a teacher centered programs aimed at upgrading skills of all teachers.

Lilly discusses the implications for administrative functions, teacher education and legislation. The administration would have the problem of dealing with existing special education programs and teachers, the cost of the training based program and convincing those that control the budget that such a change is necessary.

He suggests that all special service personnel be reassigned. Some would become instructional specialists and others would be assigned to teach in the mainstream program.

With regard to cost, the training based model is intended to replace, not supplement, existing services. The special services budget could support such a program without additional cost to the school district.

Lilly feels that at present it is possible to convince the general public and education control agencies that special education is not accomplishing its objectives. Special education is encountering questions of accountability that must be answered.

A training based service model has some direct implications for university based teacher education programs. Instructional specialists would have to become experts in all areas of behavior and curriculum management, and at the same time, must develop interpersonal skills necessary to conduct successful teacher education. In addition to a graduate level program for instructional specialists, departments of special education would offer a basic training unit to all students enrolled in elementary or secondary education.

The implications for legislation are somewhat complex. Most state laws provide reimbursement for special education services based on the number of children served by categorical areas. Another funding base would have to be sought if special education was to offer direct services to teachers rather than children. Examples of teacher based reimbursement systems are available (e.g., Minnesota), and legislative problems with regard to the changing nature of special education

should be fully explored. Lilly feels that the first decision must be strategical with regard to children and teachers and once that decision is made, selling it to legislators would be a matter of time and effort. [17]

G. Phillip Cartwright and Carol A. Cartwright took Gallagher and Lilly's suggestions for handling the problems of special class placement and stated that they are complementary. They feel that the special education contract may be an effective procedure for phasing in the more complete zero reject model. They suggest that the experience received by special educators working on a special education contract may be important retraining for the new roles special educators would need to assume under a training based model. Gallagher's suggestions for contracted placements would also deal with children who fall between the mildly and severely handicapped children that Lilly deals with.

The Cartwrights propose two models to be used as bases for provision of direct services to children within the regular classroom and also for the development of teacher education programs.

The identification model ties into the training based model suggested by Lilly in that it would serve as a decision making process for deciding which children were candidates for the regular class model.

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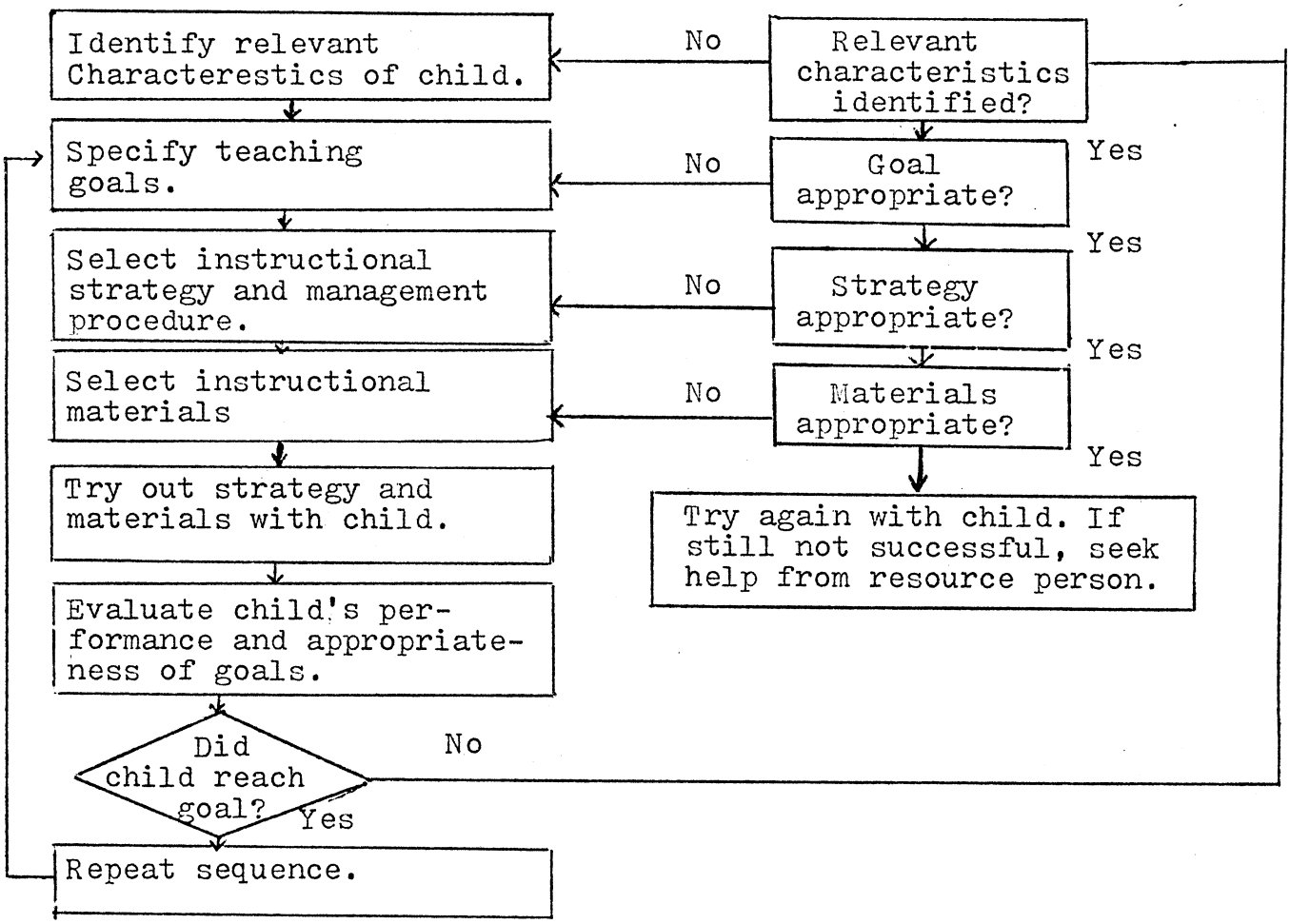
[17] M. Stephen Lilly, "A Training Based Model for Special Education", Exceptional Children, (Summer 1971), pp. 745-749.

The basic set of global competencies required to carry out the identification model include the abilities to: (1) Specify the characteristics of handicapped children and describe the symptoms which are indicative of potential learning problems. (2) Screen all children in regular classroom programs for deviations and determine the extent of the interindividual differences. (3) Select and use for those children with deviations appropriate commercial and teacher constructed appraisal and diagnostic procedures in order to obtain more precise information on the nature of the deviation. (4) Synthesize information by preparing individual profiles of each child's strengths and weaknesses on educationally relevant variables. (5) Evaluate the adequacy of the information available in order to make appropriate decisions about referral to specialists. (6) Prepare adequate documentation for the case if the decision to refer is affirmative.

The diagnostic teaching model is important for the implementation of the suggested training based special education model. The following eight objectives delineate the basic set of global competencies that are required to carry out the diagnostic teaching model: (1) Identify characteristics of individual children that may indicate the need for special teaching or management procedures. (2) Specify relevant educational objectives for individual children. (3) Select techniques for effective classroom management. (4) Choose and use specialized teaching strategies for reaching specific objectives for children with varying behavioral and learning characteristics.

(5) Choose and use special materials in association with specific strategies. (6) Identify and use appropriate evaluation procedures. (7) Draw upon existing sources of information regarding specialized strategies and materials. (8) Consult with available resource persons for assistance.

These objectives correlate with the following decision model for diagnostic teaching.



The Cartwrights suggest the diagnostic teaching model as the basis for the instructional programs designed to provide the regular classroom teacher with the skills that he needs to handle problems within the regular classroom. The models they propose should be useful to both regular and special education personnel and are directly related to Lilly's training based model. [18]

Data on the Educational Modulation Center model were collected at the Educational Model Center in Olathe, Kansas. Results were compiled on 308 children over a period of three years. Of these children, 70 percent improved their rate of achievement in reading after consultant intervention developed educational prescriptions for the child. The remaining 30 percent did not respond, and the rate of achievement either did not change, or decreased. Results in arithmetic achievement were slightly better.

When compared to the control group receiving no intervention of any type, however, the results were significant. The intervention group improved significantly more than did the control group.

In addition, 85 percent of the children serviced at the EMC improved significantly in their measured self-concept scores, while 90 percent were rated by their teacher as having significantly improved classroom behavior. Less than 10 percent of the control group improved in either self-concept or behavior.

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[18] G. Phillip Cartwright, Carol A. Cartwright, "Gilding the Lilly: Comments on the Training Based Model", Exceptional Children, (November 1972), pp. 231-234.

The resource room concept has been studied at the Educational Modulation Center, Olathe, Kansas, Albuquerque, New Mexico, as well as many other places. The percentage of children who were not helped was about 30 percent. It was because of this 30 percent that the following proposal was made. [19]

Gary Adamson and Glen Van Etten proposed an alternative to Lilly's zero reject model, which they call the "fail-save" operational model. The "fail" represents the system's failure to meet all children's needs, not the child's. The "save" represents the adaptation of the system to the child's individual needs and "saves" him. They felt a model was needed that would offer greater alternatives.

This model consists of a ten-week program. During this time period methods and materials consultant/teacher administers a basic educational skills evaluation, which emplasizes educational task analysis. These educational instruments and results are shared with the classroom teacher. The methods and materials specialist also observes in the classroom. These observations are used to design programs that fit into the teacher's methods of operating.

The child is then programmed by the teacher and the specialist. One specific task is programmed. Individual and group sessions are also conducted for the parents and teachers. The regular classroom teacher maintains primary responsibility for the child's educational program.

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[19] Keith Beery, Models for Mainstreaming, (Dimensions Publishing Co., San Rafael, California, 1972).

Near the end of the ten-week cycle, a conference of parents, teachers, administrators, and the methods and materials specialist is held to plan future program directions.

Many alternative directions are available: (1) the child is continued for an additional ten-week period of time; (2) the child is referred to a resource classroom/regular class placement; or (3) special class/resource room placement. Specific time limits are set for each alternative, thus eliminating the possibility that children could be placed in special classrooms and maintained there during the duration of their educational career.

The authors emphasize that a long-range study is needed to: (1) identify the model that children respond to best; (2) determine relative cost benefit of different approaches; (3) establish criteria for success and failure; and (4) solicit other acceptable operational models from the educational community.[20-21]

In 1970, Evelyn Deno proposed that special education "conceive of itself primarily as an instrument for facilitation of educational change.[22] Deno sees special education as the research-and-development

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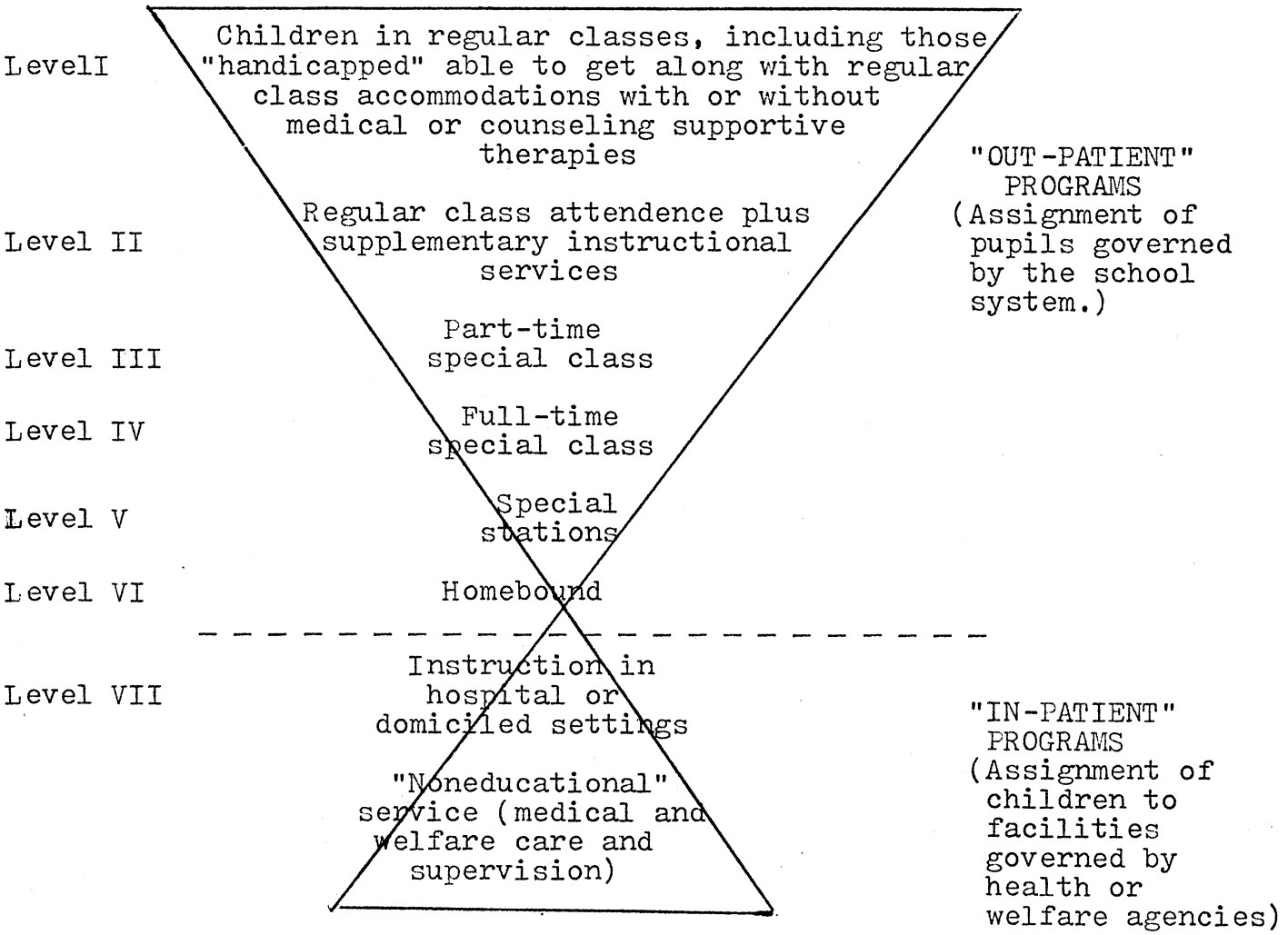
[20] Gary Adamson, Glen Van Etten, "Zero Reject Model Revisited: A Workable Alternative", Exceptional Children, (May 1972), pp. 735-738.

[21] Keith Beery, Models for Mainstreaming, (Dimensions Publishing Co., San Rafael, California, 1972).

[22] E. N. Deno, "Special Education as Developmental Capitol", Exceptional Children, 37, (November 1970), pp. 229-237.

arm of regular education. To assume this role, special education would have to be linked to regular education. Deno proposes cascade of education services. She describes this system as one which "facilitates tailoring of treatment to individual needs rather than a system for sorting out children so they will fit conditions designed according to group standards not necessarily suitable for the particular case". [21]



This system is flexible and adaptable. It should make it possible to reduce special education enrollment while providing the special education service for those that need it. This approach also gives the teacher his rightful place as a key member in the answer finding team. Deno's cascade of services recognizes the individuality of exceptional children by providing a wide variety of service options.[23]

The Madison Plan as proposed by Dr. Frank Hewitt, Dr. Frank Taylor and Dr. Herbert Clay provides for exceptional children and provides a way for the movement of these children back into regular classrooms. It has been used by the Santa Monica Unified School District in California.

This plan evolved from the engineered classroom model and the Compulsory Reassignment Plan.

The engineered classroom was devised by Dr. Hewett and Dr. Taylor. The engineered classroom has from 9 to 12 pupils. The program is composed of four parts. There is definate developmental sequencing of educational goals (attention, response, order, exploratory, social and mastery). The classroom is arranged in four centers - mastery, exploratory, order and communications. A check system is used, involving both individual and class record keeping. Specific interventions are used when inappropriate behavior is exhibited.

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[23] Jerry D. Chaffin, "Will the Real Mainstreaming Program Please Stand Up! (or....Should Dunn have done it?)", Focus on Exceptional Children, Vol. 6, No. 5, (October 1974).

The engineered classroom was successful; however, Dr. Hewitt and Dr. Taylor felt the rate of return to regular classrooms was not fast enough. Because of this concern the Compulsory Reassignment Plan evolved. The engineered classroom was still used, but at the end of the school year each student was assigned to a regular classroom for fall. The children could only re-enter the engineered classroom by referrals from the classroom teacher. Over 50 percent of the children were re-referred each year. Because of concern over the lack of readiness on the part of the other 50 percent, a program was developed which provides step-by-step progression back to the regular classroom. This is the Madison Plan.

The Madison Plan is a cycle. The child is referred from the regular classroom. If there is a need, the student enters the engineered classroom, which is called Pre-Academic I. From here the child progresses through Pre-Academic II, Academic I and II. Pre-Academic II involves the use of one-to-one situations and small group settings. Academic I is a large group regular class activity simulation setting. The regular classroom is Academic II - the final culminating phase. It is felt that this plan more fully prepares the child for re-entry into the regular classroom.[24]

Another model of interest is the North Sacramento Model Program. This model was developed by Robert H. Bradfield and funded by the state of California in an effort to explore educational alternatives.

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[24] Keith Beery, Models for Mainstreaming, (Dimensions Publishing Co., San Rafael, California, 1972).

Three educable mentally retarded children and three educationally handicapped children were placed in a third grade classroom. These six exceptional children had previously been placed in self-contained classes. The adult-pupil ratio in the third grade classroom was 14 children to 1 adult. The plan called for the addition of a fourth grade class during the second year of the project and a fifth grade class during the third year, with similar ratios.

An inservice training component was included in the project. This was designed to train ten additional teachers in the school district each year to individualize instructional techniques more effectively and to change expressed attitudes toward handicapped children.

A precision teaching process was used for both academic and social behavior improvement. This process involved a six-point procedure: (1) Pinpointing a behavior by selecting and operationally defining the behavior of concern; (2) Recording the frequency of the pinpointed behavior and the number of minutes during which the observation occurred; (3) Computing the rate of the behavior, based on frequency of behavior per minute; (4) Charting the behavior rates on a six-cycle logarithmic chart; (5) Intervening the behavior rate; (6) Repeating and modifying the intervention if the charts indicated less than desirable changes.

The results of this model project suggest that educators might maintain the special child within regular class programs and still provide an effective learning situation for all children. Modifications in regular class procedure have to be made to accommodate

these children. This modification tends to benefit the majority of the children in the classroom. The special child becomes difficult to find in this modified environment and labels lose significance. An interesting development was that the staff found an equivalent number of children who were as handicapped as the children who had been labeled exceptional and, in some cases, they were more handicapped. The results also showed that the non-handicapped children in this program improved as much or more than did their control groups in other classes where special children were not being taught. [25-26]

Other approaches to mainstreaming that must be considered are the resource school concept and the resource teacher concept.

In 1971 an entire elementary school in a semirural school in western Washington was converted into a resource school. The school served 480 elementary students from Kindergarten through sixth grade, including 48 mildly handicapped students (the type usually labeled emotionally disturbed, mentally retarded, or learning disabled). The school was organized to: (1) provide better service to the mildly handicapped children in the district, (2) provide, through extensive specification of goals and administrative processes, data

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[25] Robert H. Bradfield, Josephine Brown, Phyllis Kaplan, Edward Rickert, Robert Stannard, "The Special Child in the Regular Classroom", Exceptional Children, (February 1973), pp. 384-390.

[26] Keith Beery, Models for Mainstreaming, (Dimensions Publishing Co., San Fafael, California, 1972).

collection and analysis and an exportable model for other schools within the district and for other districts wishing to undertake similar ventures, and (3) provide a superior practicum facility for college special education students wishing to become resource teachers.

Highly skilled, accountable instructional personnel are essential to the effective operation of a resource school. Curricular structure and data collection were important, therefore the following criteria are essential in team selection: (1) The teacher must have a specific preparation in working as a team member; (2) The teacher must have, or be able to acquire, the capacity to administer a variety of group achievement and individual diagnostic tests; (3) The teacher must be prepared to use a variety of curricular interventions and reinforcement procedures to achieve specific goals; (4) The teacher must be prepared to employ a variety of evaluative measures intrinsic to formative and summative evaluations of pupil progress.

The results of the resource school approach were significant increases in reading performance of handicapped children. Through flexible scheduling a large number of nonhandicapped students exhibiting deficits in academic skills were successfully served, providing a preventative aspect to this program. The stigma of special education placement was reduced because categorical labels were eliminated.[27]

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[27] James G. Affleck, Thomas W. Lehning, Kateri D. Brow, "Expanding the Resource Concept: The Resource School", Exceptional Children, (March 1973), pp. 446-453.

The development of resource teacher programs has been rapid. There appear to be at least three dimensions along which resource programs differ: (1) Direct versus indirect service. This dimension describes whether the children receive instruction directly from the resource teacher or from the classroom teacher with the resource teacher serving as a consultant: (2) Skill versus ability orientation. Skill-oriented programs focus on basic school tasks such as reading and arithmetic, whereas ability-orientated programs concentrate on so-called central processing mechanisms, which are related to perceptual, motor and psycholinguistic abilities. In the former, perscriptions are based on a task analytic diagnosis of skills and subskills, and in the latter on differential psychological diagnosis; (3) Resident versus itinerant. A resource program may be based in a single school or serve two or more schools. The resource programs providing indirect service should be less affected by itinerant demands since the classroom teacher can implement and maintain the instructional program.

While resource programs may vary along the preceding dimensions, they should share the following set of common standard attributes: (1) Identified criterion performances. Resource programs must clarify and adopt the criterion tasks that will ensure acceptable performance by the children whom they serve; (2) Daily instruction and assessment. Responsive and effective instructional decision making as well as program evaluation require that objective and continuous feedback is available to the instructional decision maker; (3) Individual instruction. The arrangement of instruction in a resource program

ideally should be one-to-one instruction from a knowledgeable instructor; (4) Management of individual instruction. Resource programs are obligated to explore and incorporate alternative means, such as training and supervising peer and cross-age tutors, that allow expanded service while maintaining quality instruction.[28]

Summary of Proposals

While there is already a variety of proposals for mainstreaming, researchers and program designers need to continue to examine the requirements of both the special pupil and teacher in the integrated classroom. Advanced methods for delivering services to the special pupil and the teacher should further improve the integrative programs.

When it is not possible to achieve the necessary climate and individualization of instruction in regular classrooms taught by regular teachers, then special arrangements should be made. Every special educator should see himself as a resource for his entire school and not simply as one who takes his own little group to some isolated room.

It should be noted that all of the proposals discussed in this paper involves both special and regular educational staff. This is a key to experiencing success in mainstreaming.

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[28] Joseph R. Jenkins, William F. Mayhall, "Describing Resource Teacher Programs", Exceptional Children, (September 1973), pp.35-36.

Court Litigation in Special Education

An impetus for the trend toward mainstreaming services has been the courts. Concern for the appropriate placement of exceptional children is embedded in the larger issue of discrimination and basic civil rights. Prior to May 1975, at least 36 cases had appeared before state and federal courts which have focused on guaranteeing the exceptional child the right to an education, the right to appropriate treatment and the opportunity for appropriate placement.

Of particular importance to the development of the mainstreaming movement was a 1971 opinion by the U. S. District Court for the Eastern District of Pennsylvania that "...placement in a regular school class is preferable to placement in a special public school class". [29] This opinion may have influenced several state legislative bodies to enact laws specifying regular class placement as preferable to special class placement. This precedent may have influenced the expansion of mainstreaming services.

Wisconsin's Chapter 115 requires that "preference is to be given, whenever appropriate, to education of the child in classes along with children who do not have exceptional educational needs". Florida law is specific about providing an education for exceptional students in regular school facilities and adapting them to the needs of exceptional students whenever possible. [30]

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[29] Martin J. Kaufman, Jay Gottlieb, Judith A. Agard, Maurine B. Kukic, "Mainstreaming: Toward an Explication of the Construct", Focus on Exceptional Children, Volume 7, No. 3, (May 1975).

Litigation has not always encouraged mainstreaming services. Policies concerned with allocating fiscal resources to establish and deliver services to exceptional children sometimes encourage the labeling and segregating of these children. Three alternatives funding formulas for special education are illustrative of the influence fiscal policies have on the implementation of mainstreaming services. The first fiscal procedure encourages mainstreaming by permitting the exceptional child to be included in the funding formula for regular education (Georgia, Texas). Differential pupil accounting procedures for mainstreamed children not only provide funding for special education costs, but also provide fiscal incentives to support regular education programs by allowing the exceptional child to be included in that funding formula too. Therefore, mainstreaming is encouraged because additional resources are available to regular education.

The second type of funding practice is the weighted equivalency formula (Florida). Local education agencies are reimbursed on a computed cost per category of exceptionality multiplied by percent of time in special education. The greater the amount of time in special education, the greater the amount of reimbursement. This formula discourages mainstreaming.

Another policy which discourages mainstreaming is when special education programs are funded on the basis of a specific number of predetermined eligible children being identified, while regular programs are funded on the basis of a fixed number of nonhandicapped children per classroom unit (New Mexico). This arrangement is in

contradistinction to the first funding paradigm discussed because the handicapped child is not eligible for inclusion in both special and regular education formulas. Funding can be a lever in affecting the mainstreaming movement. [31]

Litigation has affected many areas of special education: (1) Due Process Protection; (2) Training of Educators; and (3) Placement of the Exceptional Child. However, funding is of primary importance in the concept of mainstreaming. Professional educators, the courts and the states have to develop a comprehensive conceptual structure of mainstreaming upon which to base the various aspects of mainstreaming services.

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[31] Martin J. Kaufman, Jay Gottlieb, Judith A. Agard, Maurine B. Kukic, "Mainstreaming: Toward an Explication of the Construct", Focus on Exceptional Children, Volume 7, No. 3, (May 1975).

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